

Physical Order and Disorder in Futurist Architecture Style

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Abstract: During the Renaissance the common artistic perception, perspective, was expressed by one group of artists primarily through lines, and by another primarily through colors. So in our own day the common background of space-time has been explored by the cubists through spatial representation and by the futurists through research into movement. Some of the Renaissance painters of spatial imagination were depicting Perspectives with lines and some others with color. In our period, new spatial imagination, space-time, came in to existence in Cubist artists' works with inquiring to create spatial "compositions". And in Futurist artists' works it came into existence with inquiring to "move". Work of Futurist artists in fields of painting, sculpturing, and architecture illustrates movement in space. Max Bense who is one of the founders of informative aesthetic believes that, order has three degrees: chaos, being structured and being shaped. When we consider complete chaos that there are no regulations for connection between different components. In this case the possibility of prediction equals zero and innovation in maximum. Definition of being structured is one organized order with a structure that might have different forms. Bense calls the third part of order as a "chaos or disorganize order". In all three factors above replacement of components affected by a general organization whatever the rate of order is more and this order is more complicated, the informative content is less. In this paper first we have introduced this style briefly, we described order and disorder in the architecture and we have analyzed Evidences of order and disorder in this style.

Key words: Physical order and disorder, Futurist architecture style, Evidence

Futurist Architecture:

In the first decade of this century the physical sciences were profoundly shaken by an inner change, the most, revolutionary perhaps since Aristotle and the Pythagoreans. It concerned, above all, the notion of time. Previously time had been regarded in one of two ways: either realistically, as something going on and existing without an observer, independent of the existence of other objects and without any necessary relation to other phenomena; or subjectively, as something having no existence apart from an observer and present only in sense experience. Now came another and new way of regarding time, one involving implications of the greatest significance, the consequences of which cannot today be minimized or ignored. It was in 1908 that Hermann Minkowski, the great mathematician, speaking before the Naturforschenden Gesellschaft, proclaimed for the first time with full certainty and precision this fundamental change of conception. "Henceforth," he said, "space alone or time alone is doomed to fade into a mere shadow; only a kind of union of both will preserve their existence." Concurrently the arts were concerned with the same problem. Artistic movements with inherent constituent facts, such as cubism and futurism, tried to enlarge our optical vision by introducing the new unit of space-time into the language of art. It is one of the indications of a common culture that the same problems should have arisen simultaneously and independently in both the methods of thinking and the methods of feeling.

Beginnings of Futurism

During the Renaissance the common artistic perception, perspective, was expressed by one group of artists primarily through lines, and by another primarily through colors. So in our own day the common background of space-time has been explored by the cubists through spatial representation and by the futurists through research into movement.

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For Jakob Burckhardt there reigned in Italy "the quiet of the tomb." The futurists were a reaction against this quietness: they felt ashamed that Italy had become simply a refuge for those seeking to escape from the demands and realities of the present. They called upon art to come forth from the twilight caves of the museums, to assert itself in the fullness of modern thought and feeling, to speak out in authentic terms of the moment. Life was their cry- explosive life. Movement, action, heroism - in every phase of human life, in politics, in war, in art: the discovery of new beauties and a new sensibility through the forces of our period. Not without right did they claim to be "the first Italian youth in centuries."

So, from the beginning, they plunged into the full struggle, and carried their cause militantly to the public. The poet Marinetti, whose apartment in Rome even to this day bears the escutcheon of the "Movimento futurista," proclaimed in the *Parisian Figaro* of February 20, 1909, "We affirm that the splendor of the world has been enriched by a new beauty: the beauty of speed." And later, in 1912, in the "Second Technical Manifesto of Futurist Painting," the futurists developed their principal discovery, that "objects in motion multiply and distort themselves, just as do vibrations, which indeed they are, in passing through space." The most exciting of their paintings realize this artistic principle.

The productions of futurist painting, sculpture, and architecture are based on the representation of movement and its correlates: interpenetration and simultaneity. One of the futurists' best minds and without any doubt their best sculptor, Umberto Boccioni, who died much too early, in 1916, has most clearly defined their purposes. In an effort to penetrate more deeply into the very essence of painting, he sought terms for his art, terms which, now obscurely felt, now shining clear and immediate in his increasing creative experience, anticipated those that later appeared in the atomic theory. "We should start," he said, "from the central nucleus of the object wanting to create itself, in order to discover those new forms which connect the object invisibly with the infinite of the apparent plasticity and the infinite of the inner plasticity."

To try to introduce the principle of movement directly into architecture did not touch the fundamental problem. In his projects for his "Città Nuova," ("New City") in his skyscraper apartment houses connected with subways, elevators, and traffic lanes at different levels, Antonio Sant' Elia tried to introduce the futuristic love of movement as an artistic element in the contemporary city. Sant' Elia's "Città Nuova," as well as Malewitsch's sculptural studies of the same period, expressed trends that were first implemented in the 1960's when movement in cities came to be recognized as a problem of urban form and obliged different levels to be created for pedestrians and vehicles. We do not know if Sant' Elia's talent would have developed. He died in 1916, at a time when his contemporary, Le Corbusier, was still far from self-realization. Although Sant' Elia's prophetic vision did not direct the way architecture then followed, it did present a new viewpoint in a period when everyone was looking for a signpost. In his manifesto of July 14, 1914, which he published in connection with the exhibition of his schemes in Milan, he demanded architecture imbued with the utmost elasticity and lightness, utilizing all the newly developed elements of construction from iron and ferroconcrete to composite materials made by chemical processes, including textile fiber and paper. Behind these technical demands loomed his artistic aim: mobility and change. What he wanted to realize he condensed into the few words: "Every generation its own house!"

Difficulties:

There are times when the man of the laboratory is compelled to go forth into the street to fight for his work. On occasion this may be advisable. But normally he endangers his work by so doing.

The futurists were perhaps too much hound up in trying to apply their ideas to all kinds of human activities; the result was that their movement - which our period cannot ignore - had a comparatively short span of volcanic productivity. It was unfortunate in that some of its ablest exponents died too early and that others lapsed into regrettable routine work, bequeathing nothing to the future except the few years of their youth.

Futurism did not have the opportunity of the cubist movement: to accumulate, through all the many-sided stages of modern development, the results of artistic research, until they should appear united and in full power in a single great work - *Guernica*.

This movement emerged in Italy and after World War I and its creators wanted a world which adapts itself directly to the new circumstances resulted from industrial revolution and emerged technology and they wanted the world to remove everything related to the time before modern industry. Founder of this style was Filippo Tommaso Marinetti and his main emphasis was this statement we affirm that the world's magnificence has been enriched by a new beauty: the beauty of speed. This movement had relatively a short life and the start of World War I was an initiation to the end of this movement which wanted to create a transformation in history of architecture. It should be noted that no important building was constructed in this style.

Theoretical subjects of Futurism such as focus on science and world technology, rapture from past and high-rise were all the elements which had lots of effect on thoughts and design of modern major architectures, like "Le Corbusier" and "Gropius" and styles, like constructivism and High-Tech.

Futurist architecture and new interpretations of Aesthetics:

However Sant'Elia, the most famous architects in Futurism movement, had never the chance to give effect to his dream projects but "Lebbeus Woods", one of today most propounded architects in the world, has given effect to his experimental projects in various points. Woods who is the professor of Harvard University, Columbia and New York has turned to new and experimental projects since 1976. Wood's works picture a world in which lines, forms, and volumes directly at odd with the traditional nature of architecture and create a new meaning which would be decoded just in its own vocabulary. On the other hand, he has already been successful to perform stages of spatial designing of two different films according to his experimental ideas. The created pictures in these films are strongly reminiscent of Futurist circumstances. 12 Monkeys (1995) and Alien 3 (1992) are two films in which Lebbeus Woods perform as architectural designers.

As mentioned before, Wood's works deal with a new world; A world which is although explosive is severely coordinated too. What is certain is that there are new meanings in the field of art aesthetics today which investigating those leads audiences to a new and completely modern ways. Therefore in a book which Woods has described his works, in addition to explaining his ideas, he has arranged a word list in which he is describing readers the elements of his designs. In this context, the explanations offered by Woods are quite Futurist and describe a revolutionary sense and passion. Perhaps Woods and his ideas are a kind of passing the Neo-futurism or a historical and logical expansion of that. A brief look at the new interpretations which Woods has given would corroborate this claim:

Freedom: a Condition which is devoid of value, use, performance, and believed meaning; a position of maximum potential.

Selection: an action which is binding with a strong and sensitive awareness of the present and is associated with risk.

Information: Innovation the world with all of complexities and multiplicities of its phenomena.

Architecture: a means to develop information through performance; Innovating innovations Phenomenon: describing or explaining the experience

Beauty: information or knowledge without interest. Underlying ideas in the forms or to be superior over forms Chaos: state of maximum entropy

Monologue: communication through the hierarchy

Experience: deformation of reality through perception

Revolution: massive self canceling political machines

Rebellion: individual resistance against established form

Modern: what which belongs to the present moment

Form: borders' condition

Struggle: necessary conditions for freedom

Physical Order and Disorder in Architecture:

The architecture is composed of different part. The connection between these components has been organized. It means that all these components are subsystem of an organism. This system or organism might be very simple or complicated. Max Bense who is one of the founders of informative aesthetic believes that, order has three degrees: chaos, being structured and being shaped. When we consider complete chaos that there are no regulations for connection between different components. In this case the possibility of prediction equals zero and innovation in maximum. Definition of being structured is one organized order with a structure that might have different forms.

Bense calls the third part of order as a "chaos or disorganize order". When we talk about this order that in which all materials have been replaced that displaying the choices have been picked up freely and in united system.

In all three factors above replacement of components affected by a general organization whatever the rate of order is more and this order is more complicated, the informative content is less .But we should not think that more complication equals chaos automatically. This order couldn't be recognize easily and could even cause mistake. More order equals less innovation .In complete chaos the probability of all components are equal, so squandering information equals zero and in consequence the possibility of new combination or maximum creation is possible.

Continuing of a style is in connection with order and squandering information and not to be with innovation. The contrast of styles comes from the difference of its components and its dominated order. In this case they have been more or less complicate and by means of that they have been connected by viewer or user. For example in Indian temples in India there is an order that they are not identifiable at the first glance because their components are almost complicated. Order means obligation automatically. Whatever this order is severe the open space is less so it could be remained for the variety of components. And each part should obey these rules more and more. In a case that some these parts couldn't even do their main task and in reverse a kind of complicated order creates more freedom and this freedom creates more open space for forming the components and causing opacity. The two kinds of orders, of course, have some exceptions just in a condition that the main factors of organism stay stable and without changing.

Buildings which are in order and are not flexible give us less freedom. In the other word changing one factor in this system could hardly possible. But in the opposite, these architectures give us their messages very clear and straight and nothing for personal interpretation for buildings with complicated order the issue is something else. Here in this case, we are completely free to act. Personal interpretation and opacity are possible. Such building expects us to be more active. We ourselves should discover the order of that and also search for its system. We can compare this building with Picasso's painting named *Guernica*. In there also this is viewer wants to comprehend the painting and this is also the viewer who is obliged to search about the organism and thoughts, problems which lay behind of the painting.

Architectural styles of Mies van der Rohe and Venturi are eventually the same (Spectrum). The contrast between the two even influenced the choice of materials. But which one of these two styles is better or more beautiful?

For answering this question it would impossible find a definite answer. As we will see the value of aesthetic of objects could be measured or adjusted. This value equals with the consequence of the division of order by complication. Whatever a building is more complicated its organism should be more expanded that we will be able to find a measurement for its aesthetic.

Buildings with severe order like many of Mies van der Rohe's works, either gives no opportunity to complication or it ends to chaos. In the other words, the Robert Venturi's open order needs complication that wouldn't be naively.

The important note is that in each style should be equivalent between complication and relevant order the comparison between two styles is impossible. We couldn't consider any style as the best in architecture absolutely.

But which or who make it clear that how the dominated order should be, simple or complicated? In T. Munro's opinion that: the complication in an organism continuously being increased in an art till it makes studying harder occasionally. The consequence of this hardship is the general turning point and return to a more simplified organism. The trueness of this Munro's idea could be confirmed by informative theory.

Peter smith proves that during architecture history, one phase with three steps is really recognition which has been repeated several times.

C A severe and distinct order dominates in first step. Coordination and simplicity has basic role in this era. C The main characteristic of second step is tension. C Lack of clarification and seduction are the main traits of third step. Order in here is that complicated which we are approaching to the maximum capacity of our conceptual.

There is a direct connection between the rate of regularity and division of information to semantic and aesthetics quota of semantic information and with the same ratio the effect of wisdom on emotion will be more and vice versa: when aesthetics information has had more quota or order is more complicated emotion dominates on wisdom.

An introvert person who is rationalist basically prefers the clear order and extrovert person is more emotionalists and prefers the complicated order more.

Evidences of Order and Disorder in this Style:

Futurism style is based on movement, sequence, motion and this style is the evidence of entropy and dynamics in systems. In a Manifesto which Sant'Elia and Marinetti entitled together as "Futurist architecture" we read: The Futurist house must be like a gigantic machine. The lifts must no longer be hidden away like tapeworms in the niches of stairwells; the stairwells themselves, rendered useless, must be abolished, and the lifts must scale the lengths of the façades like serpents of steel and glass. The house of concrete, glass and steel, stripped of paintings and sculpture, rich only in the innate beauty of its lines and relief, extraordinarily "ugly" in its mechanical simplicity, higher and wider according to need rather than the specifications of

municipal laws. It must soar up on the brink of a tumultuous abyss: the street will no longer lie like a doormat at ground level, but will plunge many stories down into the earth, embracing the metropolitan traffic, and will be linked up for necessary interconnections by metal gangways and swift-moving pavements.) Futurism was based on this belief that it should release itself from used and old themes to be able to get the today life chaos out from iron, steel, and rash speed by an artistic expression; they wanted to bring art closer to life and considered movement as the essence of today life. They believed that to embody dynamics they should emphasize on light and movement because they cause to reduce stableness of nominal objects.

Conclusion:

Futurist style is based on movement, sequence, and, motion and this style is the evidence of entropy and dynamics in systems. Futurism was based on this belief that it should release itself from used and old themes to be able to get the today life chaos out from iron, steel, and rash speed by an artistic expression; the wanted to bring art closer to life and considered movement as the essence of today life. They believed that to embody dynamics they should emphasize on light and movement because they cause to reduce strength of formal objects. In this style, we have a brief look at the new interpretations which Woods has given would corroborate this claim: Freedom: a state which is devoid of value, use, performance, and believed meaning; a position of maximum potential.

Architecture: a means to develop information through performance; inventing inventions.

Phenomenon: describing or explaining the experience Beauty: information and knowledge without interest. Underlying ideas in the forms or to be superior over forms Chaos: state of maximum entropy

Monologue: communication through the hierarchy

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